



RETECH2013

5th Annual Renewable Energy Technology Conference & Exhibition

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Marriott Wardman Park, Washington, DC





Department of Energy Loan Programs Office

Program Overview Fall 2013





LPO Overview

- DOE's Loan Programs Office (LPO) is one of the largest project finance teams in the world, managing the largest innovative energy and transportation portfolio in the world, with significant remaining funding capacity
- Through its Title XVII and ATVM programs, LPO supports commercially ready innovative, clean energy and automotive projects that are not yet able to secure funding from private sector banks, the bond market, or other lenders
- LPO's \$35 billion in loans, loan guarantees, and conditional commitments to 33 clean energy and transportation projects combined with \$21 billion from the private sector will result in \$55 billion in total investment in domestic infrastructure





LPO Overview (cont)

- DOE's losses to date represent about 2% of the \$35 billion portfolio of closed and conditionally committed loans and guarantees—and less than 10% of the roughly \$10 billion in loan loss reserves that Congress set aside for the Programs
- As of mid-June, Borrowers have repaid more than \$1 billion on their loans, including Tesla's complete and early repayment of its \$465 million loan
- Twelve of LPO's nineteen clean energy generation projects are currently producing power, enough to power 450,000 homes
 - Four more projects are expected to come online in 2013, including three of the world's largest concentrating solar power projects
 - 20% of new renewable capacity from 2012-2016 is projected to come from LPO projects





DOE Loan Programs Eligibility Requirements & Commitments

Energy Programs

Title XVII Capacity: ~\$51 billion in authority – \$35 billion in 1703; \$16 billion in 1705 (ARRA)

Eligible projects must:

- Avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases;
- Employ new or significantly improved technologies or processes as compared to commercial technologies in service in the United States; and
- Assure a reasonable prospect of repayment of principal and interest.

Transmission Infrastructure Program (TIP) Capacity: \$3.25 billion in authority (ARRA)

- Partnered with DOE's Western Area Power Administration.
- New or upgraded electric transmission lines and related facility projects that have a terminus in WAPA territory and help deliver renewable sources to market.

Auto Program

Advanced Technology Vehicles Manufacturing (ATVM) Capacity: \$25 billion in authority Eligible projects must:

- Be an automotive manufacturer (OEM) satisfying specified fuel economy requirements or a manufacturer of qualifying components;
- Be financially viable without the receipt of additional federal funding for the proposed project; and
- Demonstrate a reasonable prospect that the applicant will be able to make payments of principal and interest.





LPO Has a Strong Portfolio

- Estimated losses to date on a \$34.4 billion portfolio are about 2%
- More than 90% of the loan loss reserve Congress set aside remains intact

NUMBER OF PROJECTS	33
TOTAL LOAN / LOAN GUARANTEE AMOUNT COMMITTED	\$34.4 BILLION
DISBURSED	\$18.5 BILLION
ESTIMATED LOSSES	UP TO \$799 MILLION (may be less, pending additional recoveries*)
LOAN LOSS RESERVE	\$10 BILLION
LOSSES AS % OF AMOUNT DISBURSED	4.3%
LOSSES AS % OF TOTAL LOAN AMOUNT	2.3%
TOTAL ECONOMIC INVESTMENT LEVERAGED	MORE THAN \$55 BILLION

^{*}Estimated loss values are based on principal disbursed less any repayments. Actual losses will likely be lower, however, as the government may have additional recoveries on the disbursed loan amounts.

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Case Study: LPO's Impact on Energy Industry - Utility Scale PV Solar Example

- LPO was instrumental in creation of utility-scale solar PV market
- In 2010, no utility-scale (>100MW) PV projects were financed in the US
- LPO financed the first six utility-scale solar projects in the US in 2011
 - Agua Caliente
 - Antelope Valley Solar Ranch
 - Project Amp
 - California Valley Solar Ranch
 - Desert Sunlight largest PV solar plant in the world
 - Sempra Mesquite
- Since that time, 10 additional utility-scale projects have been financed without DOE support
 - Many of the private sector lenders in these transactions first provided debt to utilityscale PV projects in the U.S. as lenders in our Section 1705 program







Draft Advanced Fossil Energy Solicitation Overview

Goal: Support commercialization of advanced technologies that avoid, reduce, or sequester

greenhouse gas emissions from facilities that utilize fossil fuels

Status: Draft solicitation comment period ended Sept. 9th; potential solicitation issued Fall 2013

Funds: Up to \$8 billion in loan guarantee authority available; self-pay credit subsidy

Eligibility: Broad Suite of Eligible Technologies

- Covers all fossil fuels, including but not limited to:
 - Coal, oil, and natural gas
 - As well as shale gas, coal bed methane, and methane hydrates
- Across the Full Fossil Fuel Value Chain
 - From extraction to generation, greenhouse gas removal to efficiency improvements of existing fossil assets
- Open to Wide Variety of Applicants
 - Mines, refineries, utilities, project developers, and factories; as well as public and private sector infrastructure such as universities, airports, and hospitals
 - Distributed generation technologies (e.g. fuel cells, microturbines, and micro-combined heat & power applications) as well as energy efficiency improvements (e.g. waste heat recovery) are

within the scope www.RETECH2013.com





Advanced Technology Vehicles Manufacturing Loan Program Overview

Goal: Support U.S. manufacturers of advanced technology vehicles and related

automotive components that meet higher fuel efficiency standards

Status: Program open – accepting applications on a rolling basis

Funds: Up to \$16 billion in direct loan authority available; credit subsidy paid by DOE

through appropriated funds

Eligibility:

- An automotive manufacturer satisfying specified fuel economy requirements or a manufacturer of qualifying components; and
- Financially viable without the receipt of additional federal funding for the proposed project; and
- Must demonstrate a reasonable prospect that the applicant will be able to make payments of principal and interest.